

# The Crank Calls

November 2006

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**NEXT MEETING**  
Nov 18, 2006 AT  
Robert Schultz's Shop  
366 40<sup>th</sup> St. Oakland CA  
Doors open at 9 AM  
Meeting Starts at 10 AM

## Upcoming Events

???

## MEETING NOTES

**10-21-06**

**Carl Wilson**

The members of BAEM welcomed our guest Scott Robertson.

Pat O'Connor reported on his visit to the GEARS model engineering show in Portland, OR in October. Bay Area Engine Modelers had a good turnout – Pat counted 11 guys and 4 wives. Our very own Dave Palmer was in the running for Best of Show with his bright yellow 3 cylinder engine, but the award went to a Fairbanks 3 cylinder engine with direct coupled generator and nicely detailed control panel. This engine features compressed air start, a system that is rarely successful in models.

Tom Armstrong talked with one of the vendors (PM Research, I think) about the 5KW solar powered Stirling engine that the vendor built at his home. It uses a number of parabolic reflectors to concentrate sunlight onto the stainless steel hot end of the engine. The 2500 F heat destroys most other materials, and even the stainless does not last long. The control system tracks the sun and can direct some of the energy away from the hot end if too much energy is available. Five kilowatts from a Stirling engine is a significant amount of energy and could operate most of the tools in our shops.

Mike Rehmus talked with a lot of the builders at the GEARS show and one of the great ideas learned from Randall Cox and Tom Stuart was the use of high temperature oil resistant o-rings in gas engines. He will publish a report of this development in Model Engine Builder. Speaking of MEB, Mike reported that the next issue will be delayed several weeks.

Mike had some more information on the proposed visit to the Harrowgate model engineering show in England this coming spring. The show organizers may be willing to assist in transporting our models to the show. Mike said that because of the time required to make the necessary arrangements we need to make plans soon.

Our treasurer Lew Throop will start collecting our annual dues of \$25 next month, i.e., November. Dig deeply into your wallet and maintain your membership and subscription to the newsletter.



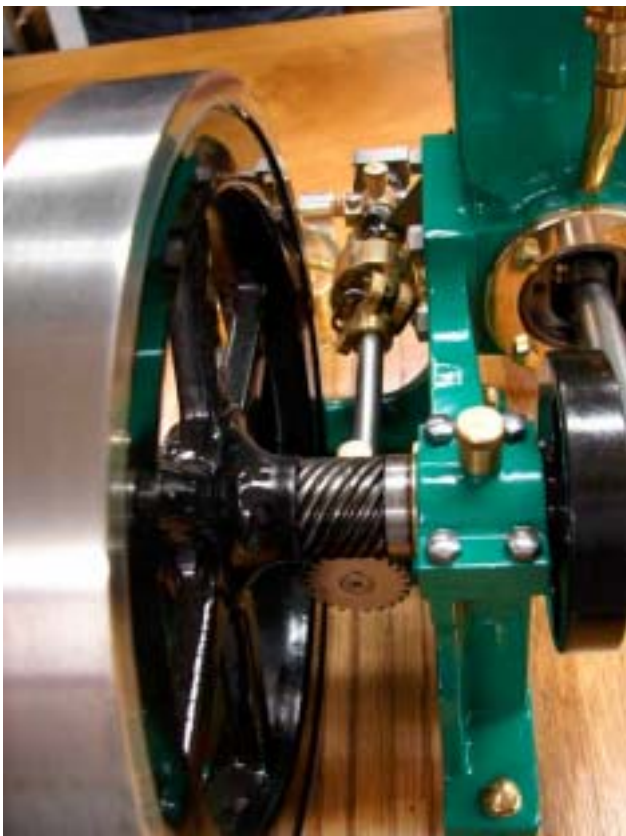
There they are! Three good looking and running Vaughan engines and their happy owners (from left to right) Robert Schutz, Dwight Giles, and George Gravatt. The last time I checked, George still had his head, even if the picture doesn't show it.



George Gravatt has his Vaughan engine running at last. He likes to make slight modifications to his engines to make them run better. His Vaughan was treated to heavier balance weights on the crankshaft and also heavier weights on the governor flyweights. The carburetor needle valve was threaded 5-54 to make fine adjustment easier. All three Vaughan engines are now finished and running.



Another detail view, this time from the head end. At the right is the governor, middle the exhaust cam, and left, the igniter trip lever.



This view from the crankshaft end of this Vaughan engine shows the helical gears driving the side shaft and at the top of the shaft, the governor.



Al Vassallo displayed his unique hot air engine. Note the coaxial operation of the power and displacer piston, and the use of "found" materials.





Bay Area Engine Modelers owns the last design of Bob Shores: the Little Devil. George Gravatt built this one and it is going to be used as a master for the production patterns to be made by John Vlavianos and cast at Del Vecchio foundry in Stockton.

Corey Fraser is building a Maverick engine, a Phil Duclos design from Home Shop Machinist. Unfortunately no pictures are available for this or for the two below:

Jerry James had a first pop on his 4 cylinder engine, but it ran for no more than one half second. He thinks the carburetor may be too small. Jerry plans to modify his crankcase to use Rulon bearings: this will make fabrication and assembly easier. He based his design on Cox pistons and cylinders but they are no longer available: Cox sold the machinery used to make these parts.

John Palmer presented his spun sheet metal muffler halves. At one time he had both parts of a draw die to make these in a press, but the die escaped his shop (probably made into something else.) John was able to use the remaining punch as a spinning chuck to fabricate these parts.



Tech Tips: Dwight Giles recommended these aircraft two-part epoxy paints for our models. They are available from Aircraft Spruce: <http://www.aircraftspruce.com/>

This from Corey Fraser via e-mail: The sanding discs that Dwight Giles showed during the Tech Topics are Roloc, a product of 3M. Corey recommends the uses of lightweight polyester auto body filler rather than the conventional stuff. He says that the lightweight filler is much easier to sand.

Paul Bennet sent some cut sheets on Klass Kote, a high quality epoxy paint used in a wide variety of applications including RC model airplanes. See them at <http://www.klasskote.com/> or by phone at 612-243-8950. Their smallest put-up is 1/2 pint which would be a convenient size for our models.

Dave Palmer uses and recommends “1-Shot” sign paint: <http://www.1shot.com/>

Hobby shops carry Humbrol and Testors paints, special masking tapes, and other painting supplies.

Pictures from GEARS





## Stuff for Sale

Steve Jasik (your editor) has 7.25" radial saw blades, and other miscellany

Grant Saviers has:

Sealed lead acid batteries , 12v x 16 Amp Hours, size is 7" L x 3" W x 6.5" H, can mount in any orientation except upside down, removed from communications equipment, made by Genesis (Hawker Energy), great for starting larger models as there is no current limit. USA made, premium battery two for \$20. 30pcs available.

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